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**1 New range-based neighbourhood operator for extracting edge and texture information from mammograms for subsequent image segmentation and analysis**

*Chandrasekhar, R.; Attikiouzel, Y.;*

Science, Measurement and Technology, IEE Proceedings- , Volume: 147 , Issn 6 , Nov. 2000

Pages:408 - 413

[\[Abstract\]](#) [\[PDF Full-Text \(908 KB\)\]](#) **IEE JNL**

**2 A real-time multi face detection technique using positive-negative likelihood of-face template**

*Hori, Y.; Shimizu, K.; Nakamura, Y.; Kuroda, T.;*

Pattern Recognition, 2004. ICPR 2004. Proceedings of the 17th International Conference on , Volume: 1 , 23-26 Aug. 2004

Pages:765 - 768 Vol.1

[\[Abstract\]](#) [\[PDF Full-Text \(1147 KB\)\]](#) **IEEE CNF**

**3 Range image segmentation with application to CAD model acquisition**

*Khalifa, I.; Moussa, M.; Kamel, M.;*

Image Processing, 2000. Proceedings. 2000 International Conference on , Vol 2 , 10-13 Sept. 2000

Pages:740 - 743 vol.2

[\[Abstract\]](#) [\[PDF Full-Text \(388 KB\)\]](#) **IEEE CNF**

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**4 Model-based lane recognition***Takahashi, A.; Ninomiya, Y.;*

Intelligent Vehicles Symposium, 1996., Proceedings of the 1996 IEEE , 19-20 1996

Pages:201 - 206

[\[Abstract\]](#) [\[PDF Full-Text \(444 KB\)\]](#) IEEE CNF

---

**5 Flexible filter neighbourhood designation***Smith, S.M.;*

Pattern Recognition, 1996., Proceedings of the 13th International Conference on , Volume: 1 , 25-29 Aug. 1996

Pages:206 - 212 vol.1

[\[Abstract\]](#) [\[PDF Full-Text \(848 KB\)\]](#) IEEE CNF

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**6 Houghing the Hough: peak collection for detection of corners, junctions and line intersections***Barrett, W.A.; Petersen, K.D.;*

Computer Vision and Pattern Recognition, 2001. CVPR 2001. Proceedings of the 2001 IEEE Computer Society Conference on , Volume: 2 , 8-14 Dec. 2001

Pages:II-302 - II-309 vol.2

[\[Abstract\]](#) [\[PDF Full-Text \(1065 KB\)\]](#) IEEE CNF

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**7 Recognition of traffic signs using a multilayer neural network***Si Wei Lu;*

Electrical and Computer Engineering, 1994. Conference Proceedings. 1994 Canadian Conference on , 25-28 Sept. 1994

Pages:833 - 834 vol.2

[\[Abstract\]](#) [\[PDF Full-Text \(60 KB\)\]](#) IEEE CNF

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Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	15	(smear near2 edge) same line	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/10/26 15:04
S2	1	(smear near2 edge) same road	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/10/26 15:10
S3	170	smear near2 edge	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/10/26 15:41
S4	10	(smear near2 edge) and road	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/10/26 15:14
S5	1	("5991427").PN.	US-PGPUB; USPAT; USOCR; IBM_TDB	OR	OFF	2004/10/26 15:15
S6	0	(smear near2 edge) and (("5991427").PN.)	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/10/26 15:15
S7	170	(smear near2 edge) and edge	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/10/26 15:15
S8	1	(("5991427").PN.) and edge	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/10/26 15:39
S9	1	"09/987258"	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/10/26 15:39
S10	1	"09/987258" and smear	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/10/26 15:39
S11	0	smear same edge same poition	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/10/26 15:42
S12	169	smear same edge same position	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/10/26 15:42
S13	1	(smear same edge same position) same road	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/10/26 15:42
S14	5	(smear same edge same position) same white	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/10/26 15:45
S15	4966	(smear blur obscure) same (edge boundary)	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/10/26 15:54

S16	13	((smear blur obscure) same (edge boundary)) same road	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/10/26 15:53
S17	269	((smear blur obscure) same (edge boundary)) same detection	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/10/26 15:55
S18	1481	(smear blur obscure) near3 (edge boundary)	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/10/26 15:54
S19	24	((smear blur obscure) near3 (edge boundary)) near4 detection	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/20 16:46
S20	8	smear same edge same white same line	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/20 16:45
S21	24	((smear blur obscure) near3 (edge boundary)) near4 detection	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/20 16:51
S22	186	edge same white same line same enhanc\$5	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/20 16:52
S23	11	S22 same eliminat\$4	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/20 16:52
S24	20429	detect\$4 near1 edge	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/20 16:53
S25	51	S24 same (white near (lane line))	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/20 16:54
S26	11	S25 same (filter\$4 enhanc\$4 eliminat\$4)	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/20 17:00
S27	1116	smear same edge	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/20 17:01
S28	74	S27 same eliminat\$4	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/20 17:01
S29	2	S28 same white	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/20 17:02
S30	332	(382/104).CCLS.	US-PGPUB; USPAT; IBM_TDB	OR	OFF	2004/12/20 17:03
S31	18	S30 and (edge same enhanc\$7)	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/20 17:05

S32	222	(white near1 (lane line)) near2 detect\$4	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/20 17:06
S33	46	S32 same edge	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/20 17:06
S34	51	sato near1 yoshihiro	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/21 14:30
S35	4	S34 and running	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/21 14:18
S36	0	S34 and smear	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/21 14:19
S37	0	running near1 path near1 detector near2 vehicle	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/21 14:19
S38	1	("5991427").PN.	US-PGPUB; USPAT; IBM_TDB	OR	OFF	2004/12/21 14:39
S39	34280	edge same (smear\$4 stain\$4 smudg\$4 obscur\$4 blur\$4)	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/21 14:40
S40	5186	S39 same imag\$4	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/21 14:41
S41	15	S40 same (white near1 (lane or line))	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/21 14:59
S42	596	(382/266).CCLS.	US-PGPUB; USPAT; IBM_TDB	OR	OFF	2004/12/21 15:00
S43	15	S42 and (white near1 (line lane))	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/21 15:02
S44	26425	(filter\$4 remov\$4 eliminat\$4 delet\$4) same (blure smear noise) same (road line lane)	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/21 15:04
S45	26819	(filter\$4 remov\$4 eliminat\$4 delet\$4) same (blur smear noise) same (road line lane)	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/21 15:04
S46	3600	S45 same imag\$4	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/21 15:04
S47	686	S46 same edge	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/21 15:05

S48	105	S47 same position	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/21 15:05
S49	15	S48 same road	US-PGPUB; USPAT; IBM_TDB	OR	ON	2004/12/21 15:05
S50	55	(348/248).CCLS.	US-PGPUB; USPAT; IBM_TDB	OR	OFF	2005/01/05 14:07
S51	1314	(348/248,241,607).CCLS.	US-PGPUB; USPAT; IBM_TDB	OR	OFF	2005/01/05 14:03
S52	0	("2and(road(whitenear1(laneline)))) ).PN.	US-PGPUB; USPAT; IBM_TDB	OR	OFF	2005/01/05 14:04
S53	23	S51 and (road(whitenear1(laneline)))	US-PGPUB; USPAT; IBM_TDB	OR	ON	2005/01/05 14:04
S54	1	"09/987258"	US-PGPUB; USPAT; IBM_TDB	OR	ON	2005/01/05 14:07
S55	1	S54 and previous\$4	US-PGPUB; USPAT; IBM_TDB	OR	ON	2005/01/05 14:10
S56	383	(smear or bloom\$4) same edge same white	US-PGPUB; USPAT; IBM_TDB	OR	ON	2005/01/05 14:10
S57	3	(smear or bloom\$4) same edge same (white near1 (lane line))	US-PGPUB; USPAT; IBM_TDB	OR	ON	2005/01/05 14:18
S58	27	(smear or bloom\$4 or noise) same edge same (white near1 (lane line))	US-PGPUB; USPAT; IBM_TDB	OR	ON	2005/01/05 14:48
S59	1	(smear or bloom\$4 or noise) same edge same (white near1 (lane line)) same position same based	US-PGPUB; USPAT; IBM_TDB	OR	ON	2005/01/05 14:35
S60	7	(smear or bloom\$4 or noise) same edge same (white near1 (lane line)) same position	US-PGPUB; USPAT; IBM_TDB	OR	ON	2005/01/05 14:35
S61	623497	previous or (first same second) same (white near1 line) same position	US-PGPUB; USPAT; IBM_TDB	OR	ON	2005/01/05 14:50
S62	39123	S61 same imag\$4	US-PGPUB; USPAT; IBM_TDB	OR	ON	2005/01/05 14:50
S63	2424	S62 same edge\$3	US-PGPUB; USPAT; IBM_TDB	OR	ON	2005/01/05 14:51

S64	318	S63 same (noise bloom\$4 smear enhanc\$5)	US-PGPUB; USPAT; IBM_TDB	OR	ON	2005/01/05 14:51
S65	40	S64 same (remov\$4 exclus\$4 delet\$4 eras\$4)	US-PGPUB; USPAT; IBM_TDB	OR	ON	2005/01/05 14:57
S66	2359	(smear bloom\$4 noise) near2 edge	US-PGPUB; USPAT; IBM_TDB	OR	ON	2005/01/05 14:57
S67	3	S66 same (white near1 (line lane))	US-PGPUB; USPAT; IBM_TDB	OR	ON	2005/01/05 14:58



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May 29, 1998

DERWENT-ACC-NO: 1998-366072

DERWENT-WEEK: 199832

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TITLE: Vehicular running path detector used for automatic transit control, lane deviation warning of vehicle - rules out high intensity area from smear area of detection region based on detection result of smear area detection unit

PATENT-ASSIGNEE: NISSAN MOTOR CO LTD (NSMO)

PRIORITY-DATA: 1996JP-0317050 (November 13, 1996)

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## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<input type="checkbox"/> JP 10141921 A	May 29, 1998		006	G01B011/00

## APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP 10141921A	November 13, 1996	1996JP-0317050	

INT-CL (IPC): G01 B 11/00; G01 C 21/00; G06 T 1/00; G06 T 7/00; G08 G 1/16

ABSTRACTED-PUB-NO: JP 10141921A

BASIC-ABSTRACT:

The detector has a camera (1) which takes photograph of the running path in which vehicle is in transit motion. A smear area detection unit is provided to detect the smear area from the photographed image of running path. A running-path detection unit (7) rules out high-intensity area found in smear area from the detection region based on detection result of smear area detection unit.

ADVANTAGE - Excels in detection accuracy of running path of vehicle. Provides exact smear positional information. Offers simple structure.

ABSTRACTED-PUB-NO: JP 10141921A

EQUIVALENT-ABSTRACTS:

CHOSEN-DRAWING: Dwg.1/6

DERWENT-CLASS: S02 T01 T07 X22

EPI-CODES: S02-A03B; S02-B08; T01-J06B; T01-J10B2; T07-A03C1; T07-D; T07-E; X22-E13; X22-X06G;